

DIGITALISATION OF WORK AND ACADEMIC STAFF PERFORMANCE IN SELECTED GHANAIA TERTIARY INSTITUTIONS

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Abstract

The academic environment globally is on a cusp of experiencing new modalities of work with the presence of digitalisation. One obvious fact remains that many including academic faculties are hesitant to change being imposed on old habits. Based on the aforementioned, this study examined digitalisation of work and academic staff performance in selected Ghanaian tertiary institutions. The study was anchored on the job demand-resources model, social exchange theory and transformational leadership theory respectively. The study was descriptive and a total of two hundred and seventy (270) academic faculties from five (5) selected tertiary institutions served as respondents through the non-probabilistic sampling technique. Findings revealed that a strong relationship exists between digitalisation of work and job satisfaction of academic staff in selected Ghanaian tertiary institutions with (0.743>0.5). Furthermore, digitalisation of work significantly affected work-life balance of academic staff in selected Ghanaian tertiary institutions with ($R^2=0.912$, $p\text{-value} < 0.05$; and significant connection between digitalisation of work and autonomy of academic staff in selected Ghanaian tertiary institutions was found with (0.801: $p=0.000 < 0.05$). The study concluded that implementing good digitalisation process in Ghanaian tertiary institutions can increase the attachment of academic staff to work and enrich their work and life domains. However, management of tertiary institutions should make continuous training and re-training a crucial task to align their academic staff with new technological tools springing up for effective work delivery.

Keywords: Academic Staff, Autonomy, Digitalisation of Work, Job Satisfaction, Tertiary Institutions and Work-Life Balance.

Introduction

Digitalising the process of work remained one of the most important topics of modern literature. This is because in today's dispensation of business practices, digital assets are found in almost, every organisations (Kuusisto, 2015). Likewise, the academic system just like other sectors of the Ghanaian economy is witnessing significant challenges of adequate lecture delivery using twenty first century technologies and this requires an occurrence of a shift in the traditional mode of work. In this regard, a cursory analysis of the submission by Eurofound (2018) brings to light that four inherent implications exist in digitalising work; the first phase reflects the changes in tasks as new technologies usher in new methods and processes. The second change encompasses the conditions of work, because while implementing technology, the presence of more physical, psychological, and environmental requirements surfaces. In furtherance, significant changes emanate within the employment conditions especially from the realm of "contractual and social conditions of the job." Lastly, changes occurring in industrial relations with instances on how management (employers) and employees (academic staff) organise their relations and settling of disputes.

According to Ogbajie, Olanipekun and Olanipekun (2023), information and communication technology allow academic staff to place premium focus more on tasks that are complex and requiring human knowledge like research activities. This is because their repetitive tasks such as lecture delivery, seminars, webinars and workshops can be done automatically arranged using the computer. Studies have provided that digitalising the process of work is potent in enabling greater efficiency and quality academic delivery (Vuori, Helander & Okkonen, 2018). This opinion stemmed from the argument that digitalisation has established disruptive changes and in a rapid manner in most organisations and fostering a competitive future for the environments of work. New organisations and businesses modes are springing forth and traditional organisations and institutions must reconsider their strategies and structures in achieving new business goals. Thus, tertiary institutions are required to align teaching practices to align with the new normal in order for them be future competitive, agile, more fundamentally software-based and sustainable (Kettunen & Laanti (2017).

As the desire and thirst for up-to-date model of teachings becomes the order of the day in the academic environment and amongst students who are clamouring for a flexible mode of learning; this study becomes very significant. As such, having proper knowledge of engaging digitalized work process can assist in the elimination of risks and allowing academic faculties to enjoy the numerous benefits inherent in using the process of digitalisation to enhance learning (Ajala, Oderinde & Olanipekun, 2023). In this dispensation, digital technologies have taken dominance and both students and faculties cannot imagine their personal lives without it. In addition, with new models and strategies ushered into the scope of teaching and research by technology, job roles are being reorganised often, which is capable of leading to alteration of satisfaction, work-life balance, and employees' autonomy. Based on the foregoing arguments, this study investigated digitalisation and its attendant effects on academia in the Ghanaian educational sector. While academic staff performance was measured on satisfaction, work-life balance level of autonomy, digitalisation of work stood as a lone independent

variable. In this regard, the overarching thrust of this study was hinged on digitalisation of work and academic staff performance in selected Ghanaian tertiary institutions.

Statement of the Problem

Digitalisation permeates all aspects of business endeavor including the academic setting. One obvious fact remains that employees including academic faculties are often hesitant to change being imposed by old habits and thinking, which in turn establish hesitation in the adoption of digitalisation, even when it seems like a panacea for enhancing the process of work. A common misconception exist which portrays that it is only when an institution upgrade and demonstrate adaptation to the new technology, then the process of digitalisation can or will take place. In the actual sense of it, digitalisation of work is not just about the software of its inherent technology, it has to do with how willing the faculties of an institution are in adapting to change and carry out their teaching process from a digitalised environment (Krause, 2016).

For tertiary institutions to navigate this digital time of change, every faculty must adapt to the digital environment of work as early as possible (Gerten, Beckmann & Bellmann, 2018). As such, in keeping pace with the change being driven by digital transformation, tertiary institutions must be adaptable, agile and ensure flexibility in their organisational culture as this critical to the successful implementation of any digital initiative. Even though corporate culture can serve as the single most crucial determinant of an institution's success in enabling rapid adjustment of faculties to new conditions and incentivising them into the adoption of new digital transformations. Finding a way of rebuilding instructive frameworks aimed at shaping another model of training that can sufficiently adjust future employments for both academia and the students have continued to generate controversies, hence this study.

Objectives of the Study

Generally, this study examined digitalisation of work and academic staff performance in selected Ghanaian tertiary institutions. Specifically, the study was aimed at:

- i. examining the relationship between digitalisation of work and job satisfaction of academic staff in selected Ghanaian tertiary institutions;
- ii. assessing the effect of digitalisation of work on work-life balance of academic staff in selected Ghanaian tertiary institutions; and
- iii. evaluating the degree of relationship between digitalisation of work and autonomy of academic staff in selected Ghanaian tertiary institutions.

Statement of Hypotheses

- H0₁:** Digitalisation of work has no significant relationship with job satisfaction of academic staff in selected Ghanaian tertiary institutions.
- H0₂:** Digitalisation of work has no significant effect on work-life balance of academic staff in selected Ghanaian tertiary institutions.
- H0₃:** Digitalisation of work does not promote autonomy of academic staff in selected Ghanaian tertiary institutions.

Literature Review

This section of the study was reviewed under the following sub-headings, conceptual review, theoretical framework, empirical review, conceptual framework and gap(s) identified in the study.

Conceptual Review

Digitalisation of Work

Digitalisation represents a term used in describing the phenomenon hinged on the adoption of digital technologies in both spheres of business and society. Furthermore, it also covers changes affiliated in individuals' and their connectivity to organisations, and its components (Urbach & Röglinger, 2019). Digitalisation of work reflects the establishment of rapid changes on the job and whose process stemmed from an event in 1969 when the deployment of the internet became the in-thing. To support the above, Castells (2020) opined that the premium characteristics of a wireless mode of communication is not just mobility but perpetual connection and connectivity. From the argument above, digitalisation of work implies the increased usage of ICT in all business areas of our existence both at work and within the society. Ogbajie, Olanipekun and Olanipekun, (2023) posited that digitalisation of work has influenced all levels of the society and affected the way businesses operate in the twenty-first century.

The tempo of academic work-life has witnessed tremendous increase due digitalisation. This is because "We now live, work and operate in a sped-up society," which has resulted in a faster pace to run our activities and programmes with fewer pauses and more process requiring multitasking, and increased time pressures; all of which directly connects with ICT. Information and Communication Technology actually provides academia the avenues to carry out teaching tasks and activities in an efficient, easier and faster manner, especially in the jet age when both faculties and students have numerous activities. Thus, if activities become numerous, lesser times are required to be spent on doing each of these tasks, even if this could induce a bit of more pressure (Sullivan & Gershuny, 2018).

Job Performance

As increased demand from many organisations in adopting either hybrid or fully remote models, job performance in digital-oriented settings of work has become a very crucial factor. This is because job performance is now being typically evaluated through both the quality and quantity of completed work, which is highly contingent on employees' level of engagement. For instance, studies have proved that employees who are highly engaged perform optimally and better as a result of their commitment towards tasks and producing of high quality and effective delivery (Schneider, Ehrhart & Macey). In a digitalized workspace, challenges being faced by academia such as digital isolations and distractions as well as blurring of boundaries from the domain of their jobs and personal lives, have the potentiality to reduce their performance.

This account for why modalities must be made available to cushion the likely effects in a bid to optimising effective teaching ability and delivery (Garcia, Lee & Patel, 2020). In alignment with the above position, an investigation by Wu and Chen (2023) cemented the argument which posited that digitalisation of work can be attained when there is a mechanism for fostering academic staff engagement at work and arming them with the necessary tools for effective teaching and lecture delivery. The submission above made

it evident that the performance of academic staff in this era of digitalisation rests on the hoax that they demonstrate discretionary efforts, adaptability and coming up creative inventions. All of these can only be achievable if there is a presence of good leadership premised on periodic trainings

Dimensions of Job Performance underpinning the Study

Job Satisfaction

Job satisfaction can be regarded and perceived to denote an individual's totality of feelings about their job and the perception cum views being held in the areas of multiple aspects of their job, vis-à-vis the method that could influence the level of connection between an individual (employees) and their employers (management). Individual employees who are satisfied with their jobs usually appears to generally demonstrate positive opinions and views. Likewise, the dissatisfied employees always hold negative perceptions and views towards their job (Lumley, Coetzee, Tladinyane & Ferreira, 2021). Ratna and Kaur (2023) provided a working definition for job satisfaction and adduce it to be either favourableness or otherwise with which employees perceive and views their job. It has to do with the balance existing between benefits of such jobs and the assumptions of individual employees of them. Thus, an individual's environment of work such as workplace remains a crucial aspect and element of one's life based on the fact that job satisfaction unarguably affects individual's life satisfaction in totality. Therefore, how an academia feels with the presence or otherwise of technology reflects the degree of an institution's management's preparation in launching her faculties to either align with best global practices of effective teaching delivery or allow them remain in perpetual obscurity.

Work-Life Balance

Work-life balance signifies a state of ensuring an equilibrium in the demands of an individual's job and their personal lives. More so, it can be argued that work-life balance means striking an equilibrium carefully prioritising both the domain of work (employment) and life (personal lifestyle) without interference (Ratna & Kaur, 2023). As captured by Lockwood, (2023), numerous versions of the work-life balance viewpoints have been established and analysed. First, the perspective of employee places focusses on the nature of how they can successfully manage the obligations of work alongside obligations from personal or family. Second, the provision of a supportive organisational culture whereby employees are able to adequately concentrate on their jobs while at it should be the motivation of every employer. In earlier years, the development of many potentially labour-saving technological-oriented devices have existed.

However, the ambiguous question now is whether these devices increase or decrease workload or induce stress. Even though it is a general belief that technology provides an easier process of getting work done in a more efficient and swift manner (Salvatori & Menon 2018). Conversely, being in possession of personal computers by individual employees (academic staff) is a double-edged sword of advantages. In this regard, the advantageous nature of employing technology during leisure time is clear; in this wise, an academic staff can decide arbitrarily on whether to work at the office or from home. This unravels the degree of flexibility inherent in mobile technology where employees can choose freely how, when and where they will work (Towers et al., 2016).

Autonomy

Employees' autonomy or job autonomy as generally being referred to as implying the quantity of control an employee or group of employees have over the situations around their job. That is to say, employees' autonomy represents the amount of discretion, freedom, and independence employees have in creatively scheduling their working tasks as well as objectively defining its process and period of completion (Hackman & Oldham, 1976). The emphasis of this study and focus on autonomy, denotes the formal interpretation being made available to employees by their organisations and through the management. In specific terms, autonomy in this study denotes the connection with how work is conducted, and planned; for instance, the freedom provided an employee in carrying out variety of activities without the approval of any supervisor. This autonomy is also classified as strategic autonomy (Globocnik & Salomo, 2015). From a theoretical dimension, technology can affect the academic environment as autonomy of academic faculties can increase as a result of their usage of modern information and communication technologies (Aral & Weill, 2017). On this note, the European Economic and Social Committee, (2017) attested that cloud computing for instance represents a large factor when explaining centralised information storage and it also incorporate and offer decentralised information access; which offer academic staff the sure possibility of faster communication. Thus, making the sharing of work-related knowledge from different places and in real time much easier.

Theoretical Framework

Numerous theoretical frameworks have been put forward in previous years but this study takes a detour by employing three theoretical bases, which are job demand-resources models, social exchange theory and transformational leadership theory. These frameworks provide detailed analysis on the subject under investigation.

Job Demand-Resources Models

This theory is credited to Bakker and Demerouti (2007) and the theory can be viewed as one of the most prominent frameworks in the parlance of explaining work digitalisation in relations to performance. As captured by this theory, availability of resources could cushion negative demands of job and thus fostering high and optimal performance. This infer that academic staff can adequately function in a digitalized work environment when the presence of leadership with strong emphasis on training which will help promote academic staff ability towards managing the inherent challenges associated with technology usage and remote pattern of work in a digital environment of work. Thus, academic staff require appropriate tools from their management with supportive climate of work to be proactive, demonstrate competence and empowerment.

Social Exchange Theory

This theory was propounded by Blau in the year 1964, and its proponent is hinged on how the environment of work exists and operates on a give and take relationship between management and the employees. In a simple term, this theory opines that employees who are provided with proper organisational support coupled with opportunities for training and development, will exhibit greater level of performance through sustained

engagements and commitment to effective work delivery. In the light of digital work pattern, resource exchange such as digital tools provided by leadership support will to a large extent affect academic staff behaviour, engagement, and overall job performance. This theory assists in explaining the significance of investments by leaders and making available the requisite trainings capable of improving performance through engagements.

Transformational Leadership Theory

This theory emanated from the position of Bass and Avolio, (1994). Where the position of leadership is found to be paramount and form the basis for empowering academic staff to work effectively in a digitalized environment or work and remain creative. The position of this theory holds that stimulating academic faculties and motivating them intellectually can fuel their desire to be highly technologically inclined and demonstrate brilliance technology usage in beautifying their works. Transformational style of leadership can assist in walking academic staff through the challenges of operating in a virtual (digitalised) work environment. At this juncture, building trust by leaders by facilitating communication and enhancing group abilities towards adapting and establishing an environment where academic staff feel enabled and engaged, which can possibly affect their performance via effective delivery.

Empirical Framework

This section of the study examined previous scholarly work on the area of investigation in order to understand the avalanche of literature and identify gap in literature.

Digitalisation of Work and Job Satisfaction

An investigation by Ratna & Kaur (2023) on IT and job related factors, on job satisfaction. Findings provided that after implementing new technologies, twenty-three (23%) of employees are demonstrate high level of devotion, twenty percent (20%) are of the impression that their works are acknowledged. In the same study, twenty percent (20%) think they could manage multiple tasks at once, while nineteen percent (19%) presumed there are better chances on the job, and eighteen percent (18%) believe if they are provided with all the necessary resources they require in order to make work easy. Moreover, this investigation by Ratna and Kaur indicated that out of the five related factors, the most virile and potent factor affecting employees' performance is technology, which was followed by job satisfaction.

Another study by Sempane, Rieger and Roodt (2022) job satisfaction cannot be solely and singlehandedly realised because it is premised on some organisational dimensions and indicators like organisation's size, structure, conditions of work, style of leadership and remuneration; all of which are parameters capable of explaining the climate surrounding an organisation. From this finding, it was revealed that lack of job satisfaction could result in high rate of turnover particularly when there is increased missing link in career opportunities. Study by Lumley et al. (2021) discovered that building a working environment of work that encourage and foster retention, current organisational practices requires total overhauling and review as a mechanism for providing meaningful tasks and encouraging positive relationships via teamwork among academics. In consequence of this rapid development of computer usage across European nations in the last twenty (20) years (Salvatori, Menon & Zwysen, 2018), job satisfaction has recorded tremendous

growth, to a significant extent, based on the usage of new technologies, and thus will continue so long as new technologies emerge into the mainstream organisational activities.

Digitalisation of Work and Work-Life Balance

A qualitative study by Jääskeläinen (2015), pointed out that when working outside the confine of one's workplace, it is difficult to control the hours of work. Thus, when employees are working around the clock, it could induce more stress. It is important to possess certain abilities in setting limits, such as not checking office mail off duty. Results have provided that new technological development has induced worries even though this is dependent on the divisions between generations "the polarisation of workforce". It as well as to do with the profession one is engaged, such as healthcare professionals and teachers in higher educational settings have stated that the usage of technology can induce stress.

Derks et al. (2014) in their own study which examined the usage of smartphones as a veritable tool for recovering from work-related stress. Finding from their study discovered that staying connected while on the job during their staying at home implies that employees have less opportunities of recovering from work related stress in spite the level of efforts being dissipated. This connote that recovery activities have not been adequately dealt with even with the usage of smartphones. From this study, it could be deduced that even though the utilization of smartphones has the propensity of increasing flexibility for employees; there is still high degree of probability of facilitating long working hours, which is likely to increase the risk of disturbance and causing imbalance between the work/home domains at the same time. The outcome of this study helps with the conclusion and realization that technology is neither a demand nor a resource in itself; but what should be considered is how it is being dealt with it or utilised.

Digitalisation of Work and Autonomy

Study by Towers, Duxbury, Higgins and Thomas, (2016) highlighted that a negative result exist between family life due to increased working hours which further blurs flexibility between boundaries operating between family life and work. In addition, digitalisation might pose significant increase in expectations as academic staff are expected by their colleagues to always demonstrate availability for work, which might induce stress on them. Another finding from the study of Gerten, Beckmann and Bellmann, (2018) provided that rapid expansion of usage in Information and Communication Technology provides easy avenue means of demonstrating proficiency and delivery of professional activities. Thus, a significant level of centralisation is being made more possible. This can be achieved with the usage of data storage and other digital devices that provide endless possibilities towards gaining permanent accessibility. From the above result, it can be deduced that continuous monitoring can result into lower autonomy for academia and can affect their usage of creative means to achieve the feat for effective delivery. This is because intensive control negatively contributes to irrational changes in behaviour on the job and can hinder effective teaching. In a similar vein, an investigation by Tafti, Mithas and Krishnan (2017) provided that information technology is being increasingly employed by organisations as an avenue for mounting increased control on the staff in areas such tracking of time through clocking in and out of work, monitoring the usage of IT, and

evaluation of proficiency. For instance, with the assistance of ICT, details of employees' locations could be easily accessed tracked by management.

Conceptual Framework

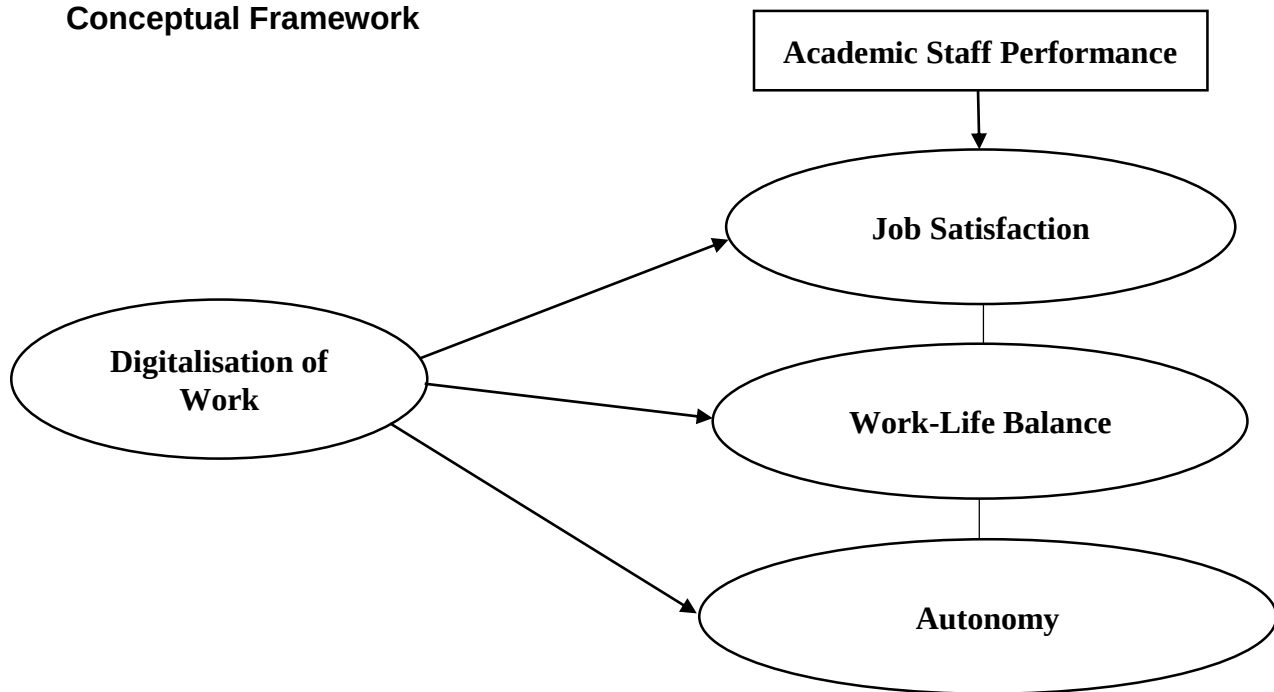


Fig I: A pictorial representation explaining digitalisation of work and academic staff performance in selected Ghanaian Institutions.

Source: Researchers Schematic Model, (2026)

Methodology

This section explained the methodology employed in the study. This ranged from research design, to the study population, sample and sampling technique and so forth.

Research Design

The study used a descriptive research design which was cross-sectional in nature, where survey was employed through questionnaire.

Study Population

The population for this study was nine hundred and seventy-nine (979), obtained from five (5) selected institutions within the Accra Metropolis in Ghana. The population for each of the institutions selected for the study is presented in the table below.

Table I: List of selected Institutions for the Study

S/N	Institutions	Population
1.	Islamic University College	230
2.	Ghana Communication Technology University	201
3.	Lancaster University College	300
4.	Blue Crest University College	153
5.	Heritage Christian University College	95
	Total	979

Source: Fieldwork, (2026)

Sample Size and Technique

Sample size for the study was two hundred and two hundred and seventy-seven (277) which was obtained using the Krejcie and Morgan 1970 sample size determination table. The sampling technique was non-probabilistic which comprised purposive and convenience sampling. Purposive was used in selecting the five (5) institutions while convenience was employed based on availability and knowledge of academia on the topic being investigated.

Table II: Determination of Sample Size for each of the selected Institutions

S/N	List of selected Institutions	Population	Proportion	Sample Size
1.	Islamic University College	230	$\frac{277(230)}{979}$	65
2,	Ghana Communication Technology University	201	$\frac{277(201)}{979}$	57
3.	Lancaster University College	300	$\frac{277(300)}{979}$	85
4.	Blue Crest University College	153	$\frac{277(153)}{979}$	43
5.	Heritage Christian University College	95	$\frac{277(95)}{979}$	27
	Total	979		277

Source: Researchers Framework, (2026)

Research Instrument

For this study, questionnaire was used as the instrument for gathering views from respondents. This instrument was divided into various sections to cover the study's objectives. The instrument was close-ended and structured on a five-point likert scale ranging from "Strongly Disagree" =1 to "Strongly Agree" =5. This instrument was administered by the researcher with the aid of trained research assistants. The instrument "questionnaire" used contained four (4) sections; with section A carving out demographics information of the respondents while other sections have contents examining other constructs of the study.

Scale Measurement

Eleven questions measuring digitalisation of work was taken from the scale by Salvatori, Menon and Zwysen, (2018). In measuring job satisfaction, nine (9) items used taken from Ratna & Kaur (2023) were used. In measuring work-life balance, six (6) items were taken from Jääskeläinen (2015) and Dimension Data (2017). Finally, to measure autonomy eight (8) items from a scale by Peña-Casas, Ghailani and Coster (2018) were used.

Validity of the Research Instrument

In accurately measuring the consistency and dependability of a research instrument is reason why validity is very crucial. The assessment of data validity reflects in the analysis of the information obtained from respondents to ensure that it correctly meets the purpose of the study based on the responses from the sample. According to Babbie (2008), validity implies how well a measure swiftly captures the entire range of meaning connected with

certain concepts. On the other hand, trustworthiness of such information is largely determined by the replicability of outcomes that are garnered under same conditions. Therefore, questionnaires items were meticulously constructed in conformity with the principles of validity and reliability globally.

Reliability of the Research Instrument

The reliability test was carried out using a pilot study from four selected manufacturing firms in Lagos State, Nigeria. The outcome of the responses was analysed using SPSS 27.0. In this regard, Cronbach's Alpha was used in validating the responses, which did not yield below 0.7, which is the global research threshold. For easy comprehension, the Cronbach's Alpha values of the pilot study are captured in table III below.

Table III: Cronbach Alphas of the study Variables

S/N	Variables	Number of Items	Authors	Cronbach's Alpha (Decision Rule)	Cronbach's Alpha (Results)	Pilot Study Result
Digitalisation of Work						
1.	Work Environment with digitised tasks	11	Salvatori, Menon & Zwysen, (2018)	0.7	0.837 (Reliable)	0.715 (Reliable)
Employees Performance						
2.	Job Satisfaction	8	Ratna & Kaur (2023)	0.7	0.751 (Reliable)	0.701 (Reliable)
3.	Work/Life Balance	6	Jääskeläinen (2015), Dimension Data (2017)	0.7	0.811 (Reliable)	0.713 (Reliable)
4.	Autonomy	9	Peña-Casas, Ghailani and Coster (2018).	0.7	0.805 (Reliable)	0.795 (Reliable)

Source: Authors Computation, (2026)

Method of Data Analysis

In adequately analysing the opinions and responses gathered from the study, the Statistical Package for Social Sciences (SPSS) software was used. In addition, descriptive and inferential statistics be used. Thus, to test the stated hypotheses for the study, regression and correlation analyses respectively will be used. Regression were employed in examining the level of effects while the correlation analysis provided results on the degree of relationship between the study variables.

Table IV: Responses from Socio-Demographic Respondents

S/N	Valuable	Categories	Frequenc y	Percentage (%)
1.	Sex	Male	165	61.1%
		Female	51	38.9%
	Total		270	100%
2.	Age	20-30 years	60	22.2%
		31-40 years	97	35.9%
		41-50 years	74	27.4%
		51 years and above	39	14.4%
			270	100%
3.	Marital Status	Single	97	35.9%
		Married	125	46.3%
		Divorced	16	5.9%
		Widowed	32	11.9%
	Total		270	100%
4.	Academic Cadre	Junior Staff	173	64.1%
		Senior Staff	97	35.9%
	Total		270	100%
5.	Length of Service	Less than 2 years	101	37.4%
		3-5 years	114	42.2%
		6-10 years	14	5.2%
		11 years and above	41	15.2%
	Total		270	100%

Source: Field Survey, (2026)

Analysis of socio demographic characteristics of respondents revealed that the distribution of respondents by sex reflects that 165 (61.1%) of the respondents were male while 51 (38.9%) were female, the study further revealed that majority of the respondents were male with 165 (61.1%). Information according to age reveal that 60 (22.2%) of the respondents were between 20-30 years of age, 97 (35.9%) of the respondents were between the ages of 31- 40 years, and 74 (27.4%) of the respondents were between the ages of 41-50 years and 39 (14.4%) of the respondents were 51 years and above. Findings revealed that majority of the respondents were between the ages of 31-40 with 97 (35.9%). Information on Marital status reflects that 97 (35.9%) of the respondents were single, 125 (46.3%) of the respondents were married, 16 (5.9%) of the respondents were divorced and 32 (11.9%) of the respondents were widows. Findings reveal that most of the respondents were married with 125 (46.3%). Information on Academic Cadre reflected that 173 (64.1%) of the respondents were junior staff while 97 (35.9%) of the respondents were senior staff. Findings reveal that most of the respondents were junior staff with 173 (64.1%). Information on length of service reflected that 101 (37.4%) of the respondents have spent less than 2 years on the job, 114 (42.2%) of the respondents have spent between 3-5 years on the job, 14 (5.2%) of the respondents have spent 6-10 years on the job and 41 (15.2%) of the respondents have spent more than 11 years on the job. Findings reveal that majority of the respondents have spent between 3-5 years on the job 114 (42.2%).

Test of Hypotheses

Hypothesis One

H0₁: Digitalisation of work has no significant relationship with job satisfaction of academic staff in selected Ghanaian tertiary institutions.

Table V: Bi-Correlational table indicating relationship between digitalisation of work and job satisfaction of academic staff in selected Ghanaian tertiary institutions.

		Digitalisation of Work	Job Satisfaction
Digitalisation of Work	Pearson Correlation	1	.743**
	Sig. (2-tailed)		.000
	N	270	270
Job Satisfaction	Pearson Correlation	.743**	1
	Sig. (2-tailed)	.000	
	N	270	270

From the bi-correlation table above, it was observed that the Pearson Correlation method was adopted. This table shows the correlation result value of (0.743: $p = 0.000 < 0.05$), which depicts that a strong relationship exists between digitalisation of work and job satisfaction of academic staff in selected Ghanaian tertiary institutions. Since there was a significant relationship, the null hypothesis was rejected. Thus, it was concluded that digitalisation of work share significant relationship with job satisfaction among academic staff in selected Ghanaian tertiary institutions.

Hypothesis Two

H0₂: Digitalisation of work has no significant effect on work-life balance of academic staff in selected Ghanaian tertiary institutions.

Table VI: Regression Analysis analysing the significant effect of digitalisation of work on work-life balance of academic staff in selected Ghanaian tertiary institutions.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.925 ^a	.912	.912	.258

a. Predictors: (Constant), Digitalisation of work

From the analysis displayed under table above, result indicated that digitalisation of work has a significant effect on work on work-life balance of academic staff in selected Ghanaian tertiary institutions with $R=0.925$; this signposted that R^2 of $=0.912$ which indicated that digitalisation of work accounts for 91.2% variation in of work on work-life balance. Nevertheless, digitalisation of work significant affect work-life balance of academic staff in selected Ghanaian tertiary institutions.

Table VII: ANOVA of Regression Analysis on the effect of digitalisation of work on work-life balance of academic staff in selected Ghanaian tertiary institutions.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	416.905	1	415.907	6367.560	.000 ^b
	Residual	21.357	271	.066		
	Total	438.265	272			

a. **Dependent Variable:** Work-life balance of academic staff

b. **Predictors:** (Constant), Digitalisation of work

Table VII illuminated that the F-value is the Mean Square Regression (416.905) when divided by the Mean Square Residual (21.357) yielded $F=6367.560$. The model thus reflected that the digitalisation of work as the independent variable was statistically significant at ($Sig = .000$) and positively has an effect on work-life balance of academic staff in selected Ghanaian tertiary institutions.

Table VIII: Coefficients of regression analysis on the effect of digitalisation of work on work-life balance of academic staff in selected Ghanaian tertiary institutions.

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.393	.065		5.936	.000
	Digitalisation of work	.828	.021	.946	37.821	.000

a. **Dependent Variable:** Work-life balance

The model summary presented the degree of influence of digitalisation of work on work-life balance of academic staff in selected Ghanaian tertiary institutions. The coefficient of determination ($R^2 = 0.912$, $p\text{-value} < 0.05$) illuminated that 91.2% variation in work-life balance of academic staff can be accounted for by digitalisation of work. This provided that digitalisation of work significantly affect work-life balance of academic staff in selected Ghanaian tertiary institutions.

Hypothesis Three

H0₃: Digitalisation of work does not promote autonomy of academic staff in selected Ghanaian tertiary institutions.

Table IX: Bi-Correlations analysis on whether digitalisation of work promote autonomy of academic staff in selected Ghanaian tertiary institutions.

		Digitalisation of work	Autonomy of academic staff
Digitalisation of work	Pearson Correlation	1	.801**
	Sig. (2-tailed)		.000
	N	270	270
Autonomy of academic staff	Pearson Correlation	.801**	1
	Sig. (2-tailed)	.000	

The table presented the analysis as to whether digitalisation of work promote autonomy of academic staff in selected Ghanaian tertiary institutions. It was revealed via the table that there exist a strong and significant connection between digitalisation of work and autonomy of academic staff in selected Ghanaian tertiary institutions with (0.801: $p=0.000<0.05$), which illustrated that digitalisation of work significantly has about 90.1% correlation with autonomy of academic staff. As a result, the null hypothesis was rejected as analysis proved that digitalisation of work does not promote autonomy of academic staff in selected Ghanaian tertiary institutions.

Discussion of Findings

This study investigated digitalisation of work and academic staff performance in selected Ghanaian tertiary institutions. Three objectives underpinned the study.

For the first objective which examined the relationship between digitalisation of work and job satisfaction of academic staff in selected Ghanaian tertiary institutions; the study outcome provided that a significant relationship was found. This finding agrees with the opinion of Gallie, (2013), who stated that a workplace that is digitized can help in improving employees' favourable job perceptions which can further result in greater organizational and corporate efficiency. In the same vein, this outcome aligns with the conclusion of the study by Cijan, Jenič, Lamovšek and Stemberger, (2019) which recorded that digitalisation is capable of improving employees' job satisfaction. This finding aligns with the conclusion by Ratna & Kaur (2023) which stated that implementing new technologies can bring about greater employees' job satisfaction. The outcome of this analysis supports the conclusion of a study by Salvatori, Menon and Zwysen (2018) which opined that technology positively affects job satisfaction. This study also shares same ideology with the study by Oderinde and Olanipekun, (2023) which captured that virtual system of work enhances job satisfaction which affects employees mental and physical well-being positively, and improving the quality of life, culminating in greater societal advancement.

For the second objective which assessed the effect of digitalisation of work on work-life balance of academic staff in selected Ghanaian tertiary institutions; analysis indicated that digitalisation of work affect work-life balance of academic staff. This finding is in alliance with the study by Towers et al. (2016) which concluded that technology provides greater job flexibility, which can result in grant employees' the freedom of choosing where and when to work. Findings from this study negated the conclusion a study by Cijan, Jenič, Lamovšek and Stemberger, (2019) which stated that the line between employees' work and away-from work activities looks very blurred. Finding from this study buttress the conclusion by Ratna & Kaur (2023) which suggested that digitalization through the usage of technology allow individual employees to dictate their pace of work which is favorable. The outcome of this study also negate the positon of Jääskeläinen, (2015) whose study submitted that technology might result in negative consequences on work/life balance; as working round the clock could lead to stress, triggering some health issues.

For the third objective which evaluated the degree of relationship between digitalisation of work and autonomy of academic staff in selected Ghanaian tertiary institutions. The outcome of the study illustrated that digitalisation of work promotes autonomy of academic staff. This finding aligns with the submission by Aral and Weill (2017) which suggested that autonomy at work can be increased through the usage of technology; which can result in easier and faster communication between group of employees, teams and so forth. Similarly, finding from this study support the submission by Ardalan (2021) whose study discovered that digitalization of work provides easier as well as more convenient access to gain knowledge. Finding from this study is also in agreement. In contrast, an investigation by Gerten, Beckmann and Bellmann (2018) posited that the fast expanding rate of technology could lead to continuous employees monitoring, which consequently may erode their autonomy, but this does not align with the current study's finding.

Conclusion

Based on the outcome of this study, it can be concluded that digitalisation of work has both positive and significant effects on academia's performance in the selected tertiary institutions in Ghana. This infer that implementing a digitised environment of work that is supported by the academia's ability to effectively run the work system can improve performance optimally, and vice versa. The results also showed that digitalization in the workplace has a positive and significant effect on work/life balance of academia. This illustrates that implementing of good digitalization process in Ghanaian tertiary institutions can increase the attachment academic staff to work and enhance their work and life domains. In terms of whether digitalization of work promotes academic's staff autonomy at work, results obtained evinced that digitalisation of work can positively and significantly promote autonomy of academia. Meaning that digitalization of work offers academic staff greater autonomy, with this, it can be concluded that increase in the adoption of digitalisation at work can help academic staff possess greater autonomy to improve their performance. With this, academic staff can offer the best contribution in improving their quality of research.

Recommendations

From the study's outcome, the following recommendations were made:

- i. Management of tertiary institutions should be eager towards reducing overtime hours, which can negative affects academic staff.
- ii. Management of tertiary institutions should embrace digital transformation and encourage data-driven decision making, by placing premium on continuous evaluation and improvement. This can assist in positioning them for success in this digital age.
- iii. Management of tertiary institutions should learn to understand the risks of digitalization and demonstrate competence in mitigating such risks.
- iv. Management of tertiary institutions should make continuous training and re-training a crucial task to align their academic staff with new technological tools springing up for effective work delivery.

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